



Banking Financial Management and Financial Markets(LCMB7012)

THE CASE OF BARCLAYS PLC UK



STUDENT NAME:ALBANA LUZI

STUDENT NUMBER:1922054

LECTURE:ISAIAH OINO

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U.K.'S RESPONSE TO THE 2008 GLOBAL ECONOMIC CRISIS

The global economic crisis in the year 2008 became the most important test to the world's financial system. It threatened to collapse the world's banking system. Some mortgage institutions, savings and loans associations, significant investment & commercial banks, and insurance companies collapsed or nearly collapsed. Economists still dispute the real cause of the crisis, though they agree on factors that contributed to it.

It all began when the U.S. Federal Reserve (Fed) reduced the interbank interest rate on overnight loans. This allowed the banks to give credit at a lower interest rate to their prime consumers. Encouraged by the reduced interest rates, they began lending at higher rates to customers with high credit risk. As a result, consumers took the cheap credit and purchased durable goods, especially houses, leading to a "house bubble"- house prices went beyond their intrinsic values. As housing prices continued to rise, subprime mortgages became lucrative for banks, which continued to market subprime loans to consumers with poor credit. Due to high mortgage payments, subprime borrowers could do asset refinancing by borrowing their properties at high value to repay their mortgages. The banks could repossess their properties in case of defaults and sell them at higher prices.

With the continued growth in subprime lending, banks began to bundle subprime mortgages together and sold them as securities (bonds) called mortgage-backed securities (MBS). Banks and investors saw this as a way of diversifying their investment portfolio. The prices of MBS continued to rise as the prices of houses continued to rise. The excessive liberalization in the late 20th century allowed banks, insurance, and security firms to merge, leading to institutions considered "too big to fail." To avoid insolvency, the Securities Exchange Commission (SEC) relaxed, in the year 2004, the minimum required ratio between debt and the assets, liabilities and capital. The banks were further

inspired and went ahead to invest in mortgage backed securities (MBS). This exposed them to high risk because the prices of MBS depended on the prices of houses.

From 2005, global inflation caused the prices of energy to rise, widening the gap between income and debts among the borrowers. These developments made it difficult for the borrowers to continue repaying their mortgages. That is when the value of property began to fall, leading to erosion of value in some of the financial assets held by the banks and other financial institutions. With U.S. and U.K. banks almost collapsing, state interventions were necessary.

Banking regulatory framework Weaknesses

The financial crisis highlighted some of the weaknesses in the international banking regulations, including;

- (i) Level and quality of capital – even though most of the banks that were hit by huge losses and received government support and bailouts had met the minimum regulatory capital set by the Basel committee, the capital mainly consisted of hybrid and innovative instruments. These instruments included preference capital and subordinated debts. These instruments were not effective in absorbing losses made by the banks. The use of common equity had been eroded, worsened by the payment of high dividends. These banks preferred such hybrid instruments (i) its risk/return profile looked appealing to some institutional investors, who could not invest in common equity. (ii) the instruments are considered debt by tax authorities. Therefore their costs are tax-deductible. Tax breaks are available (iii) they don't lead to dilution of control, which is an unavoidable consequence of issuing ordinary shares. However, these instruments are without their drawbacks, though considered by the regulators as capital. Interests on such instruments are payable, even in times of crisis, hence their inability to absorb losses.
- (ii) Procyclicality - the rating-based capital fronted by the Basel II framework worsened the economic cycle fluctuations. The capital requirements rose during recessions and fell

when the economy improved. Banks are normally forced to limit loans or even reduce their assets when in capital ratio stress, hence amplifying the negative phase of the economic cycle. Banks must hold more capital in times of recession because of the higher risk they are facing. Therefore is a sound macro-prudential policy to asked banks for more capital in times of recession. However, from the viewpoint of the financial system as a whole, such measures may prove counterproductive. Limiting credit will worsen the recession. There will be a higher risk of default. The committee adopted the following provisions; (i) adjusting the gradient of risk weigh curve representing the probability of default by the counterparties, (ii) extending the timeframe for estimating the probability of default, (iii) putting forth clear provisions regarding stress tests by explicitly establishing provisions for stress tests and the extra capital requirements in Pillar 2.

In addition to that, the committee introduced an additional capital requirement equal to 2.5% of risk weighted assets. Banks would then be cushioned against losses arising in times of economic and financial turmoil. It also prevented banks from eroding their capital base through dividend distributions, repurchasing of shares including large payment of bonus to the top management.

The committee proposed an additional countercyclical capital requirement to prevent banks from the risks associated with excessive growth of loans, varying between 0% and 2.5%. The national regulatory authorities were to decide on this. When the supply of credit increases due to economic growth, the banks' capital requirements increases and reduces in times of recession. It would therefore act as a macro-prudential supervisory tool.

- (iii) Leverage – even though their capital ratios met the regulatory requirements, many large banks were highly levered. This played a significant role during the crisis, in combination with procyclicality. To improve their capital ratios, most banks had to dispose of a

substantial portion of their assets. Although it guaranteed individual bank's solvency, a deleveraging process was triggered, worsening the instability in the money markets. What came out clearly was the need to combine proper policies for leadership and supervision in the banking system. Such policies would help to prevent the occurrence of crisis in the whole system and to prevent individual banks from insolvency. That is when the Financial Stability Board put forth a framework on capital adequacy centered on the ratio of capital and a requirement on leverage based on assets to equity ratio.

- (iv) Liquidity – Liquidity shortage became one of the most significant problems during the financial crisis. This is because many large banks relied on massive liquidity in the interbank market. Central banks used to supply cheap liquidity. However, with time, liquidity risks increased due to (i) globalization of the leading institutions who held huge resources and obligations in many countries, which made it difficult to gauge the probability of future cash flows. (ii) technology – retail and professional customers can now do bank transfers through internet banking (iii) securitization, enabling the transformation of assets. For example, mortgage-based securities (iv) hedge funds implemented arbitrage strategies using leverage, shifting a massive volume of funds between markets. All these have been concentrated on the central banks, implying that if they default or stop trading for any reason, the repercussions will be profound.
- (v) Systemic institutions – Many financial institutions received government support and bailouts during the financial crisis. The fear was that if they collapse, there will be a system-wide crisis. This was because many large financial institutions were interconnected through interbank or over-the-counter markets for derivatives. The institutions are known as Global Systemically important banks (G-SIBS). The interconnectedness allowed shocks to travel from one bank to another and through the financial systems and the economy.

- (vi) Arbitrage between banking and trading book – many banks with internal validated model suffered huge losses on their trading books rather than banking books due to market price volatility on credit related positions, for example securitization transactions. Changes in Price were in turn, triggered by the liquidity crash, default events, or credit migrations (deterioration of credit worthiness). Two major problems were revealed by the scenario;
- (i) failure by the market risk models used by banks to capture the potential effects of liquidity crisis scenarios (ii) the inclusion of the credit-related positions in the trading book, mainly focusing on market risk, instead of borrowers default risk (typically on securitized credit portfolios).

Banking Regulatory Reforms

The financial crisis sparked a significant wave of regulatory and policy reforms in the banking industry. The regulations were aimed at; (i) improving the resilience of individual banks to reduce their failure risk, (ii) strengthening the financial markets to limit the probability of risk spilling over in case of failure in the financial institutions and (iii) to cushion the taxpayers from incurring costs in future which come as a result of crisis in the banking system.

Basel 3 reforms

Basel III reforms were put forth by the Basel Committee on Banking Supervision (BCBS) in response to the crisis. The reforms were meant to strengthen banks' ability to handle shocks arising from financial distress and improve their transparency and disclosure.

The committee published the proposals in the year 2010, which was to be implemented gradually. These proposals included;

1. Capital with higher quality and able to absorb losses. This was to be implemented by (i) strengthening the core Tier 1 equity (CET1), which was to be set at 4.5% of the risk-weighted assets. (ii) introducing some adjustments in the computation of common

- equity. (iii) excluding innovative capital not considered sufficiently “sound” from regulatory capital
2. Gradual introduction of a 2.5% capital protection cushion from the year 2016 – which was an additional requirement. This was meant to absorb losses that may arise from financial & economic distress.
 3. Countercyclical requirement of capital was also added, set between 0% and 2.5% of risk-weighted assets, subject to the approval of supervisory authorities.
 4. A minimum ratio of 3% during the monitoring period, between CET1 and total assets. From 2018, this was to be a compulsory requirement.
 5. The committee introduced two new liquidity requirements; net stable funding ratio (NSFR) and liquidity coverage ratio (LCR). They were introduced first as a monitoring tool but were to be compulsory later.
 6. A new counterparty risk capital requirement was also introduced.

The table below presents a summary of the above requirements as per Basel III regulations;

Types of requirement	% of risk-weighted assets	Basel 2	Basel 3
Common equity	(a) Minimum	2%	4.5%
	(b) Conservative buffer		2.5%
	(d) Total (a+b)		7.0%
Tier 1 capital ratio	(c) Minimum	4%	6.0%
	(e) Total (c+b)		8.5%
Total capital ratio	(f) Minimum	8%	8.0%
	(g) Total (f+b)		10.5%
Additional macro-prudential requirements	(h) Anticyclical buffer		0%-2.5%
	(i) Additional requirements for systemic banks		

Source: *Basel Committee on Banking Supervision (2010d)*.

Higher quality capital

To remain solvent in times of crisis, there was need for banks to preserve enough capital that would be able to offset unexpected losses. This was dependent on the risk that is attached to the various assets in a bank. The regulation refers to this capital as 'own fund requirements.' This capital was to be a proportion of the risk-weighted assets. This means that lower capital was allocated to the lower risk assets and higher capital to higher risk assets. Depending on the quality and risk, assets are graded as follows;

- (i) **Tier 1 capital (CET1):** This is the going concern capital, which will enable the bank to run its activities and be solvent. This capital is considered to be of highest quality. Examples include ordinary, surplus stock, and profits retained. They are not reimbursable since they don't have the maturity, and the bank is not obligated to pay dividends on them.
- (ii) **Tier 2 capital (CET2):** this is the gone concern capital. In case of insolvency, this capital will be used by the bank to pay the main debt holders. An example is the issued and fully paid in debt. These instruments must (i) registered in the name of banks debt holders and depositors of the bank. (ii) should have a five-year maturity (minimum) (iii) redemption incentives or step-ups must not be available. (iv) its dividend payment must not be linked the bank's credit standing.

The combined capital (CET1 and CET2) should account for not less than 8% of the risk-weighted assets. Tier 1 capital should constitute 4.5% of risk-weighted assets.

Macroprudential regulations

The committee introduced two macro-prudential policy tools adding to the minimum requirements. This would increase banks' capital support in times of economic expansion to deal with

procyclicality. These tools would protect the financial markets against procyclicality behaviors as well as guaranteeing banks' solvency. These mechanisms were;

- (i) A 2.5% capital protection cushion in addition to the 4.5% that was required by the regulations as a minimum, which would add up to 7.0%. A bank that doesn't meet these requirements is restricted to distributing earnings and other discretionary payments, such as payments to the shareholders, own share purchase, and bonuses to the bank's management. If a bank, for example, has 6% equity to risk-weighted assets ratio, it would be allowed to distribute only 40% of its net income (retain 60%). The banks are supposed to accumulate capital of high-quality, up to 7% of their risk-weighted assets, in better economic times. Losses could then erode this during bad times up to the minimum of 4.5%
- (ii) Countercyclical capital buffer – This is an additional capital requirement attached to the growth of credit, announced once a year in advance to avoid surprising banks and financial markets. This capital will rise when credit is on an upward trend and falls on credit contraction. Its application is discretionary to protect the banking sector when there is unnecessary growth of credit. Such unnecessary growth is usually linked to risk in the whole system, building up over time. It became effective in January, with the U.K. having it at a rate of 0.5%.

Leverage

A maximum requirement for leverage was proposed by the committee. This was meant to restrain the use of leverage by banks and avoid the risk of damage to the banking system and the economy. This would be an independent and transparent way of measuring risk, and therefore would safeguard and eliminate errors in the risk based model of measuring risk. The ratio is between CET1 capital and the total assets (including off-balance exposures); and set at 3%. This will become Basel's 1st pillar,

supplementing risk-weighted capital requirement. It is set at 3% during the parallel run (monitoring phase). Formally;

$$\text{Plain leverage} = \frac{\text{Tier 1}}{\text{On balance sheet and off-balance sheet assets}} > 0.03$$

Liquidity Requirements

In the wake of the 2008 financial crisis, there was a need for banks to put in place strategies that can make them more resilient in case of future turbulence in the financial sector. The committee proposed two minimum liquidity requirements to deal with the liquidity problems i.e., Liquidity coverage ratio (LCR) & Net Stable Funding Ratio (NSFR)

a) Liquidity Coverage Ratio (LCR)

This ratio was meant to promote short term resilience of the liquidity risk profile of banks (Canfranc, 2019). This ratio was meant to ensure that the assets of the bank are unencumbered and of high standards in terms of quality. The quality of assets is high if the bank can convert them into cash easily in a financial market at little or no cost. The requirement was introduced in 2015 with an initial requirement of 60%, rising in equal steps to reach 100% in 2019. The implementation was to be spread as follows;

January 1,2015	January1, 2016	January1, 2017	January1, 2018	January1, 2019
60%	70%	80%	90%	100%

The stock of unencumbered HQLA should be able to meet the total net cash outflow over a 30-day period under a prescribed stress scenario. The ratio should always be at least 1.

The LCR has two components; (i) High quality Liquid Assets and (ii) Total net cash flow

$$\text{amount. } LCR = \frac{\text{High quality Liquid assets(HQLA)}}{\text{Total net cash outflow amount}} > 1$$

The 30 day period is set because by the end of this period, corrective actions will have been implemented by the concerned parties to resolve the situation in an orderly way.

- (i) HQLA (high-quality liquid assets) – it comprises level 1 and level 2 assets. Level 1 asset is the most liquid and high quality assets including marketable securities, cash and central bank reserves. The extent to which the bank should hold these assets is not limited. Level 2 assets are further classified into level 2A assets which include bonds and corporate debt together with certain government securities and level 2B assets, for example, equities, mortgage-backed securities and lower rated corporate bonds. The aggregate of level 2 assets should not exceed 40% of the high quality liquid assets (HQLA), in aggregate while level 2B assets should not be more than 15% of the bank's high quality liquid assets (HQLA). In order for assets to qualify as high quality liquid assets (HQLA), they should be liquid in the market in times of stress, eligible for use by the central bank in its operations.
- (ii) The total net cash outflow – this comprises the total expected cash outflows minus the total expected cash inflows in a prescribed stress scenario over a 30-day period. The outstanding balances of various liabilities and off-balance sheet obligations are multiplied by the rate at which they are expected to run down to arrive at the total expected cash outflows. The various contractual receivables are multiplied by the rate at which they are expected to flow in to arrive at the net cash inflows. The cash inflows are capped at 75% of the total expected cash outflow to ensure the minimum level of HQLA is maintained at all times.

b) Net stable funding ratio (NSFR)

The purpose of this ratio is to ensure that assets, which are of long term nature, are financed with at least a minimum amount of stable liabilities compared to their liquidity

risk profile. It is therefore a quantification of the percentage of non-current assets financed by stable funding. This standard makes it a requirement for banks to hold enough long term stable funds to support its operations for more than one year. The banks are expected to maintain this ratio at 100% to fulfill this requirement. This will serve to deter banks against extreme maturity transformation – where banks use short-term finances to extinguish long term obligations. Formally;

$$NSFR = \frac{\text{Total Available Stable Funding (ASF)}}{\text{Total Required Stable Funding (RSF)}} \geq 100\%$$

- (i) **Available stable funding (ASF)** – these are the sources of financing that can be relied upon under stress conditions for over one year. They include the total of CET1 and CET2 capital, preference share capital with more than one year maturity, long term liabilities and that portion of current liabilities available to the bank during times of financial stress. Each of the factors is assigned a “stability” coefficient – defined available stable funding factor between 100% applied to the most stable ones to 50% for the less stable ones (0% is implicitly assigned to those liabilities which are not allowed to be computed).
- (ii) **Required Stable funding (RSF)** – this is that portion of an asset that can be monetized, for example through sale or being converted into a security (collateral).

To strengthen the banks’ liquidity monitoring system, the following market indicators were introduced by the committee; (i) Contractual maturity mismatch – that identifies the difference between the contractual liquidity inflows and outflows over a definite period of time. (ii) Funding concentration per individual counterparty – to identify a significant source of funding, that if withdrawn could cause liquidity problems.

Market risk capital requirements

The huge losses suffered by big international banks on their trading books during the financial crisis led the committee to propose significant market risk capital requirements. The changes had to do with the internal model approach, i.e., the capital requirements imposed on those banks with a validated internal model to measure market risks. The standard model had two changes (i) the required capital connected to a specific risk remains at 8%. (ii) an additional requirements relating to risks arising from securitization and re-securitization transactions, according to their ratings.

Counterparty capital requirements

During the financial crisis, there was a huge counterparty risk brought about by over-the-counter bilateral derivatives that were not supported by global clearinghouses. If a bank defaulted, it would cause huge losses to other financial institutions and the system. Therefore, the committee introduced a higher capital requirement, such as those imposed in an over-the-counter transaction on derivatives. This also presented an incentive for banks to use centralized clearinghouses. Two innovations were introduced by Basel 3:

- (i) The effective expected positive exposure (EEPE) was computed using the basic and stressed scenarios. This is an estimated value of exposure to potential credit that is related to the positive mark to market value of a position on a derivative. The bank will use the higher value instead of adding the two (approaches used when computing market risk). The EEPE is then used to calculate the requirement of capital showing the default risk of a counterparty.
- (ii) Introduction of Credit value adjustment (CVA), which captured the risk of counterparty credit deterioration (such as a downgrading or a simple increase in its credit spread). Large banks registered significant losses during the crises, which were not caused by the

counterparty's default but by the sudden deterioration of the credit quality leading to fair value adjustments in their derivative position. Therefore, the counterparties were less likely to meet their obligations, and thus, the bank wrote down the outstanding values.

Global systemic Banks

Additional regulatory requirements were justified on the globally systemic important banks (G-SIBS); (i) to limit the risk posed to the financial system as a whole by a solvency crisis that may occur at any one of them. (ii) since they are perceived as being 'too big to fall,' causing them to enjoy relative funding advantage (lower cost of debt and equity capital). Therefore the committee developed a way of assessing the degree of systemic relevance of a bank on indicators based on factors such as; (i) size (ii) activities across different jurisdictions – to understand its global stature (iii) how it is connected with other banks (iv) if it's substitutable and (v) its business, structure and operational complexity, as measured by factors such as trading volume, the level of assets that are not liquid and complex and the number of over the counter trading or derivatives.

Pay and bonuses

The shareholders, taxpayers and taxpayers criticized banks in relation to their pay related policies. Their view of the mega bonuses was that the managers “rewarded themselves for failure”. What followed were the announcements of tough restrictions on how the banks were supposed to pay their staff, for example, banks were to pay between 20% and 30% of the bonuses in cash, and defer the other 40% to 60%, spread over three to five years. The other 50% of the bonus was to be paid in shares, and not in cash. It became a requirement also that the maximum bonus payable be based a percentage of individual basic pay and the pay details be published. In case an individual's performance is later deemed not worthy of pay, the regulator was encouraged to reclaim the pay (claw back).

How the reforms contributed towards stabilizing the financial system

The publication of the regulations in the banking sector elicited mixed reactions from researchers, experts in the banking sector, and the general public all around the world. Those who support the reforms believed that these reforms will be of help in preventing future risk in the financial systems and that the reform's benefits were higher than the costs. However, those who opposed the rules expressed the fear that there could be unintended outcomes and that the regulations did not provide cure-for-all problems in the industry.

Positive effects of the reforms

A number of studies were reviewed by the Macroeconomic Assessment Group of the Bank for International Settlements (MAG 2011). These reviews indicated that an occurrence of a financial crisis represented 19% of the gross domestic product (GDP), assuming that the crisis is temporary. In any given country, there was a probability of 4.5% per annum that the whole system is affected by the crisis. This information was used by MAG to study the effects of the regulatory reforms on global systemically important banks (GSIB) in 14 countries. They concluded Basel 3 reforms would lower the probability of crisis by between 0.45% and 1.05% per year. This will translate to an annual benefits between 0.09% ($=0.45\% \times 19\%$) to 0.20% ($=1.05\% \times 19\%$) of the gross domestic product (GDP).

In the meantime, the Basel committee on Banking Supervision (BCBS, 2010a) examined various studies and realized that the average present value of costs of a crisis is around 60% of the output before a crisis, assuming a permanent effect of the crisis on an actual activity. Therefore reducing the chances of a crisis occurring by 1.0% each year is likely to produce a desirable effect of 0.6% of output each year. BCBS used various models and methods which produced consistent results that higher capitalization and liquidity reduced the chances that a crisis could occur.

Angeline et al (2011a) argues that, besides the reduction in chances of crisis occurring, tighter regulations may lead to minor fluctuations in output, uplifting the welfare even when the banking crisis is not there. Angeline et al (2011a) noted that increasing capital to asset ratio by 1% lead to a

decline in the standard deviation of output by an average of 1%., while increasing capital by 1%, the output variability reduced by a margin of between 0.3% and 2.7% relative to baseline.

Limitation of the reforms

Many countries may have to finally endure the economic costs of the new regulations. The costs associated with higher liquidity and capital requirements may have to be shifted by the banks to the consumers by lowering the deposit rates or increasing the lending rates, and increasing the services fees. There are also concerns that the Basel 3 reforms could influence the functioning of the financial system as a whole. There are costs associated with increasing the capital requirements. To meet their capital requirements, banks may combine many approaches that may adversely affect the whole macroeconomic activities in a country, for example issuing new equity, retaining more of its profits, and reducing risk-weighted assets. Retaining profits implies less dividend payments, efficient operations and raising its income through fees (other than interest fee). Efficient operations may involve cutting down on costs including staff rewards, increasing profit margins between lending and borrowing rates. Risk-weighted assets can also be reduced leading to a decrease in the loan portfolio, tighter loan contracts, lowering loan maturity period, disposing other assets, and focusing the statement of financial position on assets that are less risky.

MAG (2020b) presented its final submission on increasing banks' capital requirements and their impact. They noted that the period over which the reforms are to be implemented is 8 years and not 4 years. To meet the required ratio of capital as prescribed by the reforms, banks are required to make an additional 1.3% to their capital per year. In the meantime, an additional 1.0% ratio of capital would cause the gross domestic product (GDP) to be less by 0.17%, with the 8 year implementation time, compared to 0.19%, in the initial estimate of 4years. Therefore the impact of Basel 3 reforms on GDP translate to 0.34% ($=1.3*0.17\%$) for an 8 year period and 0.37% ($=1.3*0.19\%$) for a 4 year period respectively. Based on the above information, the annual growth will reduce by between 4%

and 9% respectively. MAG (2010b) therefore made a conclusion that these reforms would have a modest impact on the growth of the economy.

Parcon et al. (2012) agreed that the new set of regulations increased the quality of capital required by the banks. This high quality capital is expected to boost the ability of the banks to absorb the likely risk and reduce the chances of future crisis in the banking industry. Nonetheless, negative effects will be felt in the economy when banks employ different strategies to meet these regulatory requirements, for example rates of lending may increase, impacting the economy negatively.

A case of Barclays Bank

Barclays Plc is a British an international bank providing financial and investment service. The bank has its headquarters in London, England. Besides investment banking, its other core businesses include wealth and investment management together with personal and corporate banking It is listed at the London Stock Exchange.

Key performance Indicators

Common Equity Tier 1 (CET1)

This is one of the regulatory capital requirements that govern the supervision of banks and other deposit institutions. CET1 ratio is a measurement of capital, which is mainly common equity defined by the Capital Requirement Regulations (CRR). During the year 2020, Barclays plc CET1 ratio increased to 15.1% (2019: 13.8%), reflecting an increase of 3.9% above the maximum distributable amount hurdle of 11.2%.

CET1 capital increased by £5.5bn to £46.3bn reflecting resilient capital generation through £7.9bn of profits before tax, excluding credit impairment charges of £4.8bn, and a £1.0bn increase due to the cancellation of the full year 2019 dividend. These increases were partially offset by £0.9bn of Additional Tier 1 (AT1) coupons paid and the announced 1.0p full year 2020 dividend. The CET1 capital increase also reflects regulatory measures for IFRS 9 transitional relief, prudent valuation and qualifying software assets.

Risk Weighted Assets (RWAs) increased by £11.1bn to £306.2bn primarily due to higher market volatility, increased client activity and a reduction in credit quality within CIB, partially offset by lower consumer lending.

The Group remains in a strong capital position, acknowledging likely headwinds in 2021 including procyclical effects on (Risk weighted Assets (RWAs)), reversal of regulatory forbearance applied through 2020 and increased pension contributions.

Common Equity Tier 1 (CET1) capital	2020	2019
	£m	£m
Total Equity (excluding Non-controlling interest)	65,797	64,429
	(11,172)	(10,871)
Less Equity instruments recognized at AT1 capital	)	)
Adjustments to retained earnings for foreseeable dividend	(204)	(1,096)
Adjusted Equity	54,421	52,462
Other Adjustments:		
Additional value adjustments (PVA)	(1,146)	(1,746)
Goodwill and intangible assets	(6,914)	(8,109)
Deferred tax assets that rely on future profitability	(595)	(479)
Fair value reserves relating to cash flow hedges	(1,575)	1,002
Gains on liabilities at fair values from own credit	870	260
Defined benefit pension fund asset	(1,326)	(1,594)
Direct and indirect holding of own CET1 instruments	(50)	(50)
Adjustments under IFRS 9 transitional arrangements	2,556	1,126
Other regulatory adjustments	55	(55)
Common Equity Tier 1	46,296	40,813
Additional Tier 1 Capital		
Capital instruments and related share premium account	11,172	10,871
Qualifying AT1 capital (including minority interest) issued by subsidiaries	646	687
Other regulatory adjustments and deductions	(80)	(130)
Total Tier 1 capital	58,034	52,241
Tier 2 capital		
Capital instruments and related share premium account	7,836	7,650
Qualifying T2 capital (including minority interest) issued by subsidiaries	1,893	3,984
Credit risk adjustments (excess of impairment over expected losses)	57	16
Other regulatory adjustments and deductions	(160)	(250)
Total Tier 2 Capital	9,626	11,400
Total Regulatory capital	67,660	63,641
	306,20	295,13
Total Risk weighted Assets (RWA)	3	1

CET 1 Ratio as a percentage of risk exposure	15.1%	13.8%
Tier 1 as a percentage of risk exposure amount	19.0%	17.7%
Total capital as a percentage of risk exposure	22.1%	21.6%

Liquidity coverage ratio

According to the Basel III requirements, the liquidity coverage ratio should be 100%. For Barclays PLC, the liquidity coverage ratio for the year 2019 and 2020 was 160% and 162% respectively. This means that they have met the Basel requirements for liquidity coverage ratio. This is shown in the table below;

	2020	2019
	£Bn	£Bn
Eligible Liquidity Buffer	258	206
Net Stress outflows	(159)	(128)
Surplus	99	78
Liquidity coverage ratio (Eligible liquidity buffer/Net stress outflows)	162 %	160 %

Source: BP Plc year 2020 balance sheet.

The above two regulations on minimum capital requirements and liquidity requirement shows that Barclays plc has complied with the regulatory requirements instituted by Basel committee to ensure banks are resilient and are able to handle future liquidity stress in case it arises.

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